

NATIONAL TRANSPORTATION SAFETY BOARD

Office of Research and Engineering
Materials Laboratory Division
Washington, D.C. 20594



January 16, 2008

MATERIALS LABORATORY FACTUAL REPORT

Report No. 08-003

A. ACCIDENT

Place : Carmichael, Mississippi
Date : November 1, 2007
Vehicle : Pipeline
NTSB No. : DCA08MP001
Investigator : Rick Downs-RPH

B. COMPONENTS EXAMINED

Power feed wires for hot water heater

C. DETAILS OF THE EXAMINATION

Two wires were submitted for examination. The wires are shown in Figure 1. The wires consisted of a single solid copper conductor. The ends had reportedly been twisted together to make the electrical connection for a hot water heater. Both wires were bare and no evidence of insulation was found on either wire. Upon microscopic examination, no damage, such as pitting, beading or erosion that would indicate an electrical arc, was found to the conductor of either wire. An example of the typical appearance of the surface of the wires is shown in Figure 2.

Nancy B. McAtee
Fire and Explosion Specialist



Image No.:0712A00562, Project No.: 2007120009

Figure 1. Overall of submitted wiring



Image No.:0712A00566, Project No.: 2007120009

Figure 2. Close-up of wire surface